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ON THE THEORY OF THE COLLECTIVE DESCRIPTION OF THE INTERACTION OF ELECTRONS IN A SOLID. [1962] 14p. 20 refs.
Free copies available from Boeing Scientific Research Labs. Library as Boeing Trans. R6. When supply is exhausted, order from OTS or SLA \$1.60, 63-10650

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DESCRIPTORS: *Electrons, *Solids, Metals, *Quantum mechanics, *Quantum statistics, Elementary particles.

Some results are set forth associated with obtaining kinetic equations for electrons that take into account the presence of spin. In this connection, the correlation of particles due to their indistinguishability is also taken into account. The equations found are utilized to (Physics--Solid State, TT, v. 9, no. 6) (over)

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- II. Boeing Trans-R6
- III. Boeing Scientific Research Labs. Seattle, Wash.

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DESCRIPTORS: *Ferromagnetic materials, Magnets,
*Magneto-optic effect, Dielectric properties,
Electromagnetic fields, Differential equations, Theory.

(Physics--Magnetism, TT, v. 10, no. 7)

63-14447

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Office of Technical Services

Santalov, P. A.
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OF A VOLATILE COMPONENT FROM SOLID SO-
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Order from LC or SLA mi\$2.40, ph\$3.30 61-10665

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If in the presence of a third element in an alloy the
expulsion rate of the volatile component is increased,
then the compression of the sample is reduced and the
total pore volume is increased. If the expulsion rate
is reduced in the presence of the third element, the
compression of the sample increases and the total
porosity decreases. The parallelism between the in-
fluence of the third element on the expulsion rate and
the structure of the specimen attest that the expulsion
of the volatile component from solid solutions is a
(Chemistry--Physical, TT, v. 3, no. 9) (over)

61-10665

1. Zinc--Diffusion
2. Cadmium--Diffusion
3. Alloys--Microstructure
1. Santalov, P. A.

151813

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Structure of Magnetite in Diffusional Reduction
Layers on [Grains of] Hematite, by V. I.
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or Vasevich?

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*Morris D. Friedman for Lincoln Lab
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VOL. 4, 1957

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